

SUBCHAPTER A : GENERAL PROVISIONS

§§312.1-312.13

Effective May 15, 1997

§312.1. Purpose.

This chapter establishes standards, which consist of general requirements, pollutant limits, management practices, and operational standards, for the final use or disposal of sewage sludge generated during the treatment of domestic sewage in a treatment works, and for the final use or disposal of domestic septage. Standards are included in this chapter for sewage sludge and domestic septage applied to the land for beneficial use, or placed on a surface disposal site. Standards are also included in this chapter for sewage sludge fired in a sewage sludge incinerator. The standards applicable to the disposal of water treatment sludge are included. Also included in this chapter are pathogen and vector attraction reduction requirements for sewage sludge and domestic septage applied to the land or placed on a surface disposal site. In addition, the standards in this chapter include the frequency of monitoring and record keeping requirements when sewage sludge or domestic septage is applied to the land or placed on a surface disposal site. Also included are the frequency of monitoring and record keeping requirements when sewage sludge is fired in a sewage sludge incinerator. Also included are requirements relating to the transportation of sewage sludge, water treatment sludge, domestic septage, chemical toilet waste, grit trap waste and grease trap waste.

Adopted September 26, 1995

Effective October 13, 1995

§312.2. Applicability.

- (a) This chapter applies to any person who prepares sewage sludge or domestic septage.
- (b) This chapter applies to any person who fires sewage sludge in a sewage sludge incinerator.
- (c) This chapter applies to any person who applies sewage sludge or domestic septage to the land and to the owner/operator of a surface disposal site.
- (d) This chapter applies to sewage sludge or domestic septage applied to the land or placed on a surface disposal site.
- (e) This chapter applies to sewage sludge fired in a sewage sludge incinerator.
- (f) This chapter applies to land where sewage sludge or domestic septage is applied, to a surface disposal site, and to a sewage sludge incinerator.
- (g) This chapter applies to any person who transports sewage sludge, water treatment sludge, domestic septage, chemical toilet waste, grit trap waste, or grease trap waste.
- (h) This chapter applies to the exit gas from a sewage sludge incinerator stack.

(i) This chapter applies to any person who applies water treatment sludge for disposal in a landfill, surface impoundment, or waste pile, as defined in 40 Code of Federal Regulations (CFR) §257.2.

(j) This chapter applies to any person who applies water treatment sludge for disposal in a land application unit, as defined in §312.121 of this title (relating to Purpose, Scope, and Standards).

(k) This chapter applies to water treatment sludge which is disposed of in a landfill, surface impoundment, or waste pile, as defined in 40 CFR §257.2.

(l) This chapter applies to water treatment sludge which is disposed of in a land application unit, as defined in §312.121 of this title.

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§312.3. Exclusions.

(a) This chapter does not establish requirements for processes used to treat domestic sewage or for processes used to treat sewage sludge prior to final use or disposal, except as provided in §312.82 and §312.83 of this title (relating to Pathogen Reduction and Vector Attraction Reduction).

(b) This chapter does not require the selection of a method of use or disposal for sewage sludge. The determination of the manner in which sewage sludge is used or disposed is a local determination.

(c) This chapter does not establish requirements for sewage sludge co-fired in an incinerator with other wastes or for the incinerator in which sewage sludge and other wastes are co-fired. Other wastes do not include auxiliary fuel, as defined in 40 CFR §503.41(b), fired in a sewage sludge incinerator.

(d) This chapter does not establish requirements for the use and disposal of sewage sludge generated at an industrial facility, unless the sewage sludge is of a domestic origin and the sewage sludge is generated from the treatment of domestic sewage. If a process at an industrial facility that primarily treats industrial wastewater combines domestic sewage with any type of industrial solid waste, any resulting sludge, process waste or wastewater generated at the industrial facility will be considered to be industrial solid waste and must be processed, stored, or disposed of in accordance with the applicable requirements of Chapter 335 of this title (relating to Industrial Solid Waste and Municipal Hazardous Waste). If a facility that primarily treats domestic wastewater combines domestic sewage with any type of industrial solid waste, any resulting sludge, process waste or wastewater generated at the facility will be considered to be domestic sludge and must be processed, stored, or disposed of in accordance with the applicable requirements of this chapter.

(e) This chapter does not establish requirements for the use or disposal of sewage sludge or other wastes determined to be a hazardous waste, as defined in §335.1 of this title (relating to Definitions) or as determined in accordance with 40 CFR Part 261.

(f) This chapter does not establish requirements for the use or disposal of sewage sludge with a concentration of polychlorinated biphenyls (PCBs) equal to or greater than 50 milligrams per kilogram of total solids (dry weight basis).

(g) This chapter does not establish requirements for the use or disposal of ash generated during the firing of sewage sludge in a sewage sludge incinerator.

(h) This chapter does not establish requirements for the storage of sewage sludge, grease trap waste, chemical toilet waste, or grit trap waste, except as provided for in §312.50 of this title (relating to Storage and Staging of Sludge at Beneficial Use Sites) and §312.147 of this title (relating to Temporary Storage). This chapter does not establish requirements for the processing, use or disposal of grease trap waste, chemical toilet waste, grit (e.g., sand, gravel, cinders, or other materials with a high specific gravity), screenings (e.g., relatively large materials such as rags) or other wastes generated during preliminary treatment of domestic sewage in a treatment works.

(i) This chapter does not establish requirements for the use or disposal of industrial septage or a mixture of domestic septage and industrial septage.

(j) This chapter does not apply to sludge, septage, or any wastes resulting from activities associated with the exploration, development, and production of oil or gas or geothermal resources, as defined in §335.1 of this title, except for domestic septage which may be collected at facilities where such activities occur, that is not mixed in any manner with other oil, gas, or geothermal wastes.

(k) Experimental use shall be excluded from the requirements of this chapter, provided the following conditions are met at the time the sewage sludge is placed on a beneficial use site or reclamation site:

(1) the metal concentrations established in §312.43(b)(3) (Table 3) of this title (relating to Metal Limits) shall be met;

(2) one of the vector attraction reduction alternatives in §312.83(b)(1)-(11) of this title shall be met;

(3) the pathogen reduction compliance requirements established in §312.82(a) or (b) of this title (relating to Pathogen Reduction) shall be met;

(4) the applicant shall receive written approval from the executive director prior to commencement of operations for the experimental project; and

(5) the applicant shall submit to the executive director the aims and goals of the project and any other additional information the executive director believes necessary to establish the experimental nature of the project.

(l) This chapter does not establish requirements for the land application of chemical toilet waste, grease and grit trap waste, milk solids, or similar non-hazardous municipal or industrial solid wastes.

(m) Except where in conflict with the requirements of other chapters in this title, this chapter does not allow for the registration of sludge processing operations or facilities. Such facilities or operations are required to obtain a permit.

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Effective October 13, 1995

§312.4. Sewage Sludge Permit, Registration, or Notification Required.

(a) Permits. Except where in conflict with other chapters in this title, a permit shall be required before any storage, processing, incineration, or disposal of sewage sludge, except for storage allowed pursuant to this section, §312.50 of this title (relating to the Storage and Staging of Sludge at Beneficial Use Sites), §312.61(c) of this title (relating to Applicability), and §312.147 of this title (relating to Temporary Storage). Any permit authorizing disposal of sewage sludge shall be in accordance with any applicable standards of Subchapter C of this chapter (relating to Surface Disposal) or §312.101 of this title. No permit will be required under this chapter if issued pursuant to other requirements of the commission, as specified in §312.5 of this title (relating to Relationship to Other Requirements).

(b) Notification of Certain Class A Land Application Activities.

(1) If a sewage sludge meets the metal concentration limits in §312.43(b)(3) (Table 3) of this title (relating to Metal Limits), the Class A pathogen reduction requirements in §312.82(a) of this title (relating to Pathogen Reduction), and one of the requirements in §312.83(b)(1)-(8) of this title (relating to Vector Attraction Reduction), it will not be subject to the requirements of §312.10 of this title (relating to Permit and Registration Applications Processing), §312.12 of this title (relating to Registration of Land Application Activities), and §312.13 (relating to Actions and Notices), except as provided in this subsection.

(2) At least 30 days prior to engaging in such activity for the first time, any generator in Texas or any person who first conveys sewage sludge from out of state into the State of Texas who proposes to store, land apply, or market and distribute sewage sludge meeting the standards of this subsection shall submit a notification form approved by the TNRCC. A completed notification shall be submitted to the TNRCC's Permitting Section of the Watershed Management Division. The notification shall contain information detailing:

(A) sewage sludge composition, all points of generation, and wastewater treatment facility identification;

(B) name, address, and telephone number of all persons who are being proposed to receive the sewage sludge directly from the generator;

(C) a description in a marketing and distribution plan which describes any activities:

(i) to sell or give away sewage sludge directly to the public, including a general description of the types of end uses proposed by persons who will be receiving the sewage sludge;

(ii) methods of distribution, marketing, handling, and transportation of the sewage sludge;

(iii) a reasonable estimate of the expected quantity of sewage sludge to be generated or handled by the person making the notification; and

(iv) a description of any proposed storage and the methods which will be employed to prevent surface water runoff of the sewage sludge or contamination of ground water.

(3) Thirty days after the notification has occurred, the activities applicable to this subsection may commence. After receiving a notification, the executive director may review a generator's activities or the activities of the person conveying the sewage sludge into Texas to determine whether any or all of the requirements of this chapter are necessary. In making this determination, the executive director will consider specific circumstances related to handling procedures, site conditions, or the application rate of the sewage sludge. The executive director may review a proposal for storage of sewage sludge, considering the amount of time and the amount of material described on the notification. Also, in accordance with §312.41 of this title (relating to Applicability), any reasonably anticipated adverse effect that may occur due to a metal pollutant in the sewage sludge may also be considered.

(4) Annually, on September 1, each person subject to notification of certain Class A activities required by this subsection shall provide a report to the commission, on forms furnished by the commission, which describes all activities described in paragraph (2) of this subsection. The report shall include an update of new information since the prior report or notification was submitted and all newly proposed activities. The report shall also include a description of the annual amounts of sewage sludge provided to each initial receiver from the in-state generator and for persons who convey out of state sewage sludge into Texas, the amounts provided from this person directly to any initial receivers.

(c) Registration of Land Application Sites.

(1) If the requirements in Subchapter B of this chapter (relating to Land Application for Beneficial Use) are met and a sewage sludge does not meet the requirements of subsection (b) of this section, a site shall be registered for the land application of sewage sludge for beneficial use, in accordance with the requirements of §312.12 of this title (relating to Registration of Land Application Activities) and the requirements of §312.13 of this title (relating to Actions and Notice).

(2) The effective date for the registration of a site at which sewage sludge is applied to the land for beneficial use is the date that the executive director by letter, approves the application, in accordance with §312.12(c) of this title. Site registration information on file with the commission shall be confirmed or updated, in writing, whenever:

(A) the mailing address and/or telephone number of the owner or operator is changed; or

(B) requested by the commission or executive director.

(d) Term limits for registration or permits shall not exceed five years. All existing registrations, not to include transportation registrations, and permits approved before August 10, 1993, shall be due for renewal five years from the date of the registration or permit approval. Registrations or permits which had

been in existence for greater than five years as of March 1, 1994, and for which a renewal application was not filed prior to March 1, 1994, are expired.

(e) Except as provided under subsection (b) of this section, no person may cause, suffer, allow, or permit any activity of land application for beneficial use of sewage sludge unless such activity has received the prior written authorization of the executive director.

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Effective October 13, 1995

§312.5. Relationship to Other Requirements.

Disposal of sewage sludge or water treatment sludge in a municipal solid waste landfill unit, as defined in 40 Code of Federal Regulations (CFR) §258.2, that complies with the requirements in 40 CFR §257 and §258 constitutes compliance with §405(d) of the Clean Water Act (CWA). Any person who prepares sewage sludge or water treatment sludge that is disposed of in a municipal solid waste landfill unit shall ensure that the sewage sludge or water treatment sludge meets the requirements in 40 CFR §258 concerning the quality of materials disposed of in a municipal solid waste landfill unit. Storage, processing, or disposal of sewage sludge authorized by a permit issued pursuant to §26.027 of the Texas Water Code will not require a separate permit authorization pursuant to this chapter, for the same activities. Sewage sludge or water treatment sludge that is disposed of in a municipal solid waste landfill unit, as defined in 40 CFR §258.2, is not subject to the fee schedules of this chapter.

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§312.6. Additional or More Stringent Requirements.

On a case-by-case basis, the commission or executive director may impose requirements for the use or disposal of sewage sludge in addition to or more stringent than the requirements in this chapter when necessary to protect public health and the environment from any adverse effect of a pollutant in the sewage sludge.

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§312.7. Sampling and Analysis.

(a) Representative samples of sewage sludge or domestic septage that is applied to the land, or placed on a surface disposal site shall be collected and analyzed.

(b) Representative samples of sewage sludge fired in a sewage sludge incinerator shall be collected and analyzed.

(c) The following methods, other methods as approved by the executive director, or the latest revision shall be used to analyze samples of sewage sludge or domestic septage.

(1) Enteric viruses, ASTM Method D 4994-89, "Standard Practice for Recovery of Viruses From Wastewater Sludge," Annual Book of ASTM Standards: Section 11, Water and Environmental Technology, 1992.

(2) Fecal coliform, Part 9221 E or Part 9222 D, "Standard Methods for the Examination of Water and Wastewater," 18th edition, American Public Health Association, Washington, D.C., 1992.

(3) Helminth ova, Yanko, W.A., "Occurrence of Pathogens in Distribution and Marketing Municipal Sludges," EPA 600/1-87-014, 1987. NTIS PB 88-154273/AS, National Technical Information Service, Springfield, Virginia.

(4) Inorganic pollutants, Method SW-846 in "Test Methods for Evaluating Solid Waste," U.S. Environmental Protection Agency, November 1986.

(5) Salmonella sp. bacteria, Part 9260 D.1, "Standard Methods for the Examination of Water and Wastewater," 18th edition, American Public Health Association, Washington, D.C., 1992.

(6) Specific oxygen uptake rate, Part 2710 B. "Standard Methods for the Examination of Water and Wastewater," 18th edition, American Public Health Association, Washington, D.C., 1992.

(7) Total solids, fixed solids, and volatile solids, Part 2540 G, "Standard Methods for the Examination of Water and Wastewater," 18th edition, American Public Health Association, Washington, D.C., 1992.

(8) Percent volatile solids reduction, Percent volatile solids reduction shall be calculated using a procedure in "Environmental Regulations and Technology - Control of Pathogens and Vectors in Sewage Sludge," EPA-625/R-92/013, U.S. Environmental Protection Agency, Cincinnati, Ohio, 1992.

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§312.8. General Definitions.

The following words and terms, when used in this chapter, shall have the following meaning, unless the context clearly indicates otherwise.

25-year, 24-hour rainfall event - The rainfall event with a recurrence interval of once in twenty-five years, with a duration of 24 hours as defined by the National Weather Service in Technical Paper Number 40, Rainfall Frequency Atlas of the United States, May 1961, and subsequent amendments, or equivalent regional or state rainfall information developed therefrom.

Active sludge unit - A sludge unit that has not closed and/or is still receiving sewage sludge.

Aerobic digestion - The biochemical decomposition of organic matter in sewage sludge into carbon dioxide, water and other by-products by microorganisms in the presence of free oxygen.

Agricultural land - Land on which a food crop, a feed crop, or a fiber crop is grown. This includes range land and land used as pasture.

Agricultural Management Unit (AMU) - A portion of a land application area contained within an identifiable boundary, such as a river, fence, or road, where the area has a known crop or land use history.

Agronomic rate - The whole sludge application rate (dry weight basis) designed:

(A) to provide the amount of nitrogen needed by the crop or vegetation grown on the land; and

(B) to minimize the amount of nitrogen in the sewage sludge that passes below the root zone of the crop or vegetation grown on the land to the groundwater.

Anaerobic digestion - The biochemical decomposition of organic matter in sewage sludge into methane gas, carbon dioxide and other by-products by microorganisms in the absence of free oxygen.

Annual metal loading rate - The maximum amount of a pollutant (dry weight basis) that can be applied to a unit area of land during a 365-day period.

Annual whole sludge application rate - The maximum amount of sewage sludge that can be applied to a unit area of land during a 365-day period.

Apply sewage sludge or sewage sludge applied to the land - Land application or the spraying/spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the soil.

Aquifer - A geologic formation, group of geologic formations, or a portion of a geologic formation capable of yielding groundwater to wells or springs.

Base flood - A flood that has a one percent chance of occurring in any given year.

Beneficial Use - Placement of sewage sludge onto land in a manner which complies with the requirements of Subchapter B of this chapter (relating to Land Application for Beneficial Use), and does not exceed the agronomic need or rate for a cover crop, or any metal or toxic constituent limitations which the cover crop may have. Placement of sewage sludge on the land at a rate below the optimal agronomic rate will be considered a beneficial use.

Bulk sewage sludge - Sewage sludge that is not sold or given away in a bag or other container for application to the land.

CFR - Code of Federal Regulations.

CWA - The Clean Water Act (formerly referred to as either the Federal Water Pollution Act or the Federal Water Pollution Control Act Amendments of 1972), Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483, Public Law 97-117, and Public Law 100-4.

Class A Sewage sludge - Sewage sludge meeting one of the pathogen reduction requirement in §312.82(a) of this title (relating to Pathogen Reduction).

Class B Sewage sludge - Sewage sludge meeting one of the pathogen reduction requirements in §312.82(b) of this title.

Commission - The Texas Natural Resource Conservation Commission.

Contaminate an aquifer - To introduce a substance that causes the maximum contaminant level for nitrate in 40 CFR §141.11 to be exceeded in ground water or that causes the existing concentration of nitrate in ground water to increase when the existing concentration of nitrate in the ground water already exceeds the maximum contaminate level for nitrate in 40 CFR §141.11.

Cover - Soil or other material used to cover sewage sludge placed on an active sludge unit.

Cover crop - Grasses or small grain crop, such as oats, wheat, or barley, not grown for harvest.

Cumulative metal loading rate - The maximum amount of an inorganic pollutant (dry weight basis) that may be applied to a unit area of land.

Density of microorganisms - The number of microorganisms per unit mass of total solids (dry weight basis) in the sewage sludge.

Displacement - The relative movement of any two sides of a fault measured in any direction.

Disposal - The placement of sewage sludge on the land for any purpose other than beneficial use. Disposal shall not include placement onto the land where the activity has been approved by the executive director or commission as storage or temporary storage and it occurs only for the period of time expressly approved.

Domestic septage - Either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap.

Domestic sewage - Waste and wastewater from humans or household operations that is discharged to a wastewater collection system or otherwise enters a treatment works.

Dry weight basis - Calculated on the basis of having been dried at 105 degrees Celsius until reaching a constant mass (i.e., essentially 100% solids content).

EPA - The United States Environmental Protection Agency.

Executive director - The executive director of the Texas Natural Resource Conservation Commission or his/her designee.

Experimental Use - Non-routine beneficial use land application or reclamation projects where sewage sludge is added to the soil for research purposes, in pilot projects, feasibility studies, or similar projects.

Facility - Includes all contiguous land, structures, other appurtenances, and improvements on the land used for the surface disposal, land application for beneficial use, or incineration of sewage sludge.

Fault - A fracture or zone of fractures in any materials along which strata, rocks, or soils on one side are displaced with respect to strata, rocks, or soil on the other side.

Feed crops - Crops produced primarily for consumption by domestic livestock, such as swine, goats, cattle, or poultry.

Fiber crops - Crops such as flax and cotton.

Final cover - The last layer of soil or other material placed on a sludge unit at closure.

Floodway - A channel of a river or watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the surface elevation more than one foot.

Food crops - Crops consumed by humans. These include, but are not limited to, fruits, vegetables, and tobacco.

Forest - Land densely vegetated with trees and/or underbrush.

Grit trap waste - Grit trap waste includes waste from interceptors placed in the drains prior to entering the sewer system at maintenance and repair shops, automobile service stations, car washes, laundries, and other similar establishments.

Ground water - Water below the land surface in the saturated zone.

Holocene time - The most recent epoch of the Quaternary period, extending from the end of the Pleistocene Epoch to the present. Holocene time began approximately 10,000 years ago.

Industrial wastewater - Wastewater generated in a commercial or industrial process.

Institution - An established organization or corporation, especially of a public nature or where the public has access, such as child care facilities, public buildings, or health care facilities.

Land application - The spraying or spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the soil so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil.

Land with a high potential for public exposure - Land that the public uses frequently and/or is not provided with a means of restricting public access.

Land with a low potential for public exposure - Land that the public uses infrequently and/or is provided with a means of restricting public access.

Leachate collection system - A system or device installed immediately above a liner that is designed, constructed, maintained, and operated to collect and remove leachate from a sludge unit.

Liner - Soil or synthetic material that has a hydraulic conductivity of 1×10^{-7} centimeters per second or less. Soil liners shall be of suitable material with more than 30% passing a number 200 sieve, have a liquid limit greater than 30%, a plasticity index greater than 15, compaction of greater than 95% Standard Proctor at optimum moisture content, and will be at least two feet thick placed in six inch lifts. Synthetic liners shall be a membrane with a minimum thickness of 20 mils and include an underdrain leak detection system.

Lower explosive limit for methane gas - The lowest percentage of methane in air, by volume, that propagates a flame at 25 degrees Celsius and atmospheric pressure.

Metal limit - A numerical value that describes the amount of a metal allowed per unit amount of sewage sludge (e.g., milligrams per kilogram of total solids); the amount of a pollutant that can be applied to a unit area of land (e.g. kilograms per hectare); or the volume of a material that can be applied to a unit area of land (e.g., gallons per acre).

Monofill - A landfill or landfill trench in which sewage sludge is the only type of solid waste placed.

Municipality - A city, town, county, district, association, or other public body (including an intermunicipal agency of two or more of the foregoing entities) created by or under State law; an Indian tribe or an authorized Indian tribal organization having jurisdiction over sewage sludge management; or a designated and approved management Agency under §208 of the CWA, as amended. The definition includes a special district created under State law, such as a water district, sewer district, sanitary district, or an integrated waste management facility as defined in §201(e) of the CWA, as amended, that has as one of its principal responsibilities the treatment, transport, use, or disposal of sewage sludge.

Off-site - Property which cannot be characterized as "on-site."

On-site - The same or contiguous property owned, controlled, or supervised by the same person. If the property is divided by public or private right-of-way, the access shall be by crossing the right-of-way or the right-of-way shall be under the control of the person.

Operator - The person responsible for the overall operation of a facility or beneficial use site.

Other container - either an open or closed receptacle, including but not limited to, a bucket, box, or a vehicle or trailer with a load capacity of one metric ton (2200 pounds) or less.

Owner - The person who owns a facility or part of a facility.

Pasture - Land on which animals feed directly on feed crops such as legumes, grasses, grain stubble, forbs, or stover.

Pathogenic organisms - Disease causing organisms including, but not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.

Person - An individual, association, partnership, corporation, municipality, state or federal agency, or an agent or employee thereof.

Person who prepares sewage sludge - Either the person who generates sewage sludge during the treatment of domestic sewage in a treatment works or the person who derives a material from sewage sludge.

Place sewage sludge or sewage sludge placed - Disposal of sewage sludge on a surface disposal site.

Pollutant - An organic or inorganic substance, or a pathogenic organism that, after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food chain, could, on the basis of information available to the executive director, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunction in reproduction), or physical deformations in either organisms or offspring of the organisms.

Process or Processing - For the purposes of this chapter, these terms shall have the same meaning as "treat" or "treatment".

Public contact site - Land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms, and/or golf courses.

Qualified groundwater scientist - An individual with a baccalaureate or post graduate degree in the natural sciences or engineering who has sufficient training and experience in groundwater hydrology and related fields as may be demonstrated by State registration, professional certification, or completion of accredited university programs that enable the individual to make sound professional judgments regarding groundwater monitoring, pollutant fate and transport, and corrective action.

Range land - Open land with indigenous vegetation.

Reclamation site - Drastically disturbed land that is reclaimed using sewage sludge. This includes, but is not limited to, strip mines and/or construction sites.

Runoff - Rainwater, leachate, or other liquid that drains overland on any part of a land surface and runs off of the land surface.

Seismic impact zone - An area that has a 10% or greater probability that the horizontal ground level acceleration of the rock in the area exceeds 0.10 gravity once in 250 years.

Sewage Sludge - Solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in treatment works. Sewage sludge includes, but is not limited to, domestic septage, scum, or solids removed in primary, secondary, or advanced wastewater treatment processes; and material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sludge incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

Sewage Sludge Debris - Solid material such as rubber, plastic, glass, or other trash which may pass through a wastewater treatment process or sludge process or may be collected with septage. This solid material is visibly distinguishable from sewage sludge. This material does not include grit or screenings removed during the preliminary treatment of domestic sewage at a treatment works, nor does it include grit trap waste.

Sludge lagoon - An existing surface impoundment located on-site at a wastewater treatment plant for the storage of sewage sludge. Any other type impoundment shall be considered an active sludge unit, as defined in this section.

Sludge unit - Land on which only sewage sludge is placed for disposal. A sludge unit shall be used for sewage sludge. This does not include land on which sewage sludge is either stored or treated.

Sludge unit boundary - The outermost perimeter of a surface disposal site.

Source Separated Yard Waste - For purposes of this chapter, shall have the same definition as found in Chapter 332 of this title (relating to Composting).

Specific oxygen uptake rate (SOUR) - The mass of oxygen consumed per unit time per unit mass of total solids (dry weight basis) in the sewage sludge.

Staging - Temporary holding of sewage sludge at a beneficial use site, for up to a maximum of seven calendar days, prior to the land application of the sewage sludge.

Store or storage - The placement of sewage sludge on land for longer than seven days.

Temporary Storage - Storage of waste regulated under this chapter by a transporter, which has been approved in writing by the executive director, in accordance with §312.147 of this title, (relating to Temporary Storage).

Three-hundred-sixty-five (365) day period - A running total which covers the period between sludge application to a site and the nutrient uptake of the cover crop.

Total solids - The materials in sewage sludge that remain as residue if the sewage sludge is dried at 103 degrees Celsius to 105 degrees Celsius.

Transporter - Any person who collects, conveys, or transports sewage sludge, water treatment plant sludges, grit trap waste, grease trap waste, chemical toilet waste and/or septage by roadway, ship, rail, or other means.

Treat or treatment of sewage sludge - The preparation of sewage sludge for final use or disposal. This includes, but is not limited to, thickening, stabilization, and dewatering of sewage sludge. This does not include storage of sewage sludge.

Treatment works - Either a Federally owned, publicly owned, or privately owned device or system used to treat (including recycle and reclaim) either domestic sewage or a combination of domestic sewage and industrial waste of a liquid nature.

Unstabilized solids - Organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Unstable area - Land subject to natural or human induced forces that may damage the structural components of an active sewage sludge unit. This includes, but is not limited to, land on which the soils are subject to mass movement.

Vector attraction - The characteristic of sewage sludge that attracts rodents, flies, mosquitos, or other organisms capable of transporting infectious agents.

Volatile solids - The amount of the total solids in sewage sludge lost when the sewage sludge is combusted at 550 degrees Celsius in the presence of excess oxygen.

Water Treatment Sludge - Sludge generated during the treatment of either surface water or ground water for potable use, which is not an industrial solid waste as defined in §335.1 of this title (relating to Definitions).

Wetlands - Those areas that are inundated or saturated by surface water or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

§312.9. Sludge Fee Program.

(a) The following words and terms, when used in this section, shall have the following meaning, unless the context clearly indicates otherwise.

(1) Annual fee. A fee charged to each person holding a registration or permit pursuant to the commission's authority in the Texas Health and Safety Code, Chapter 361, or a permit issued pursuant to the commission's authority in the Texas Water Code, Chapter 26, except that a fee will not be assessed under this chapter as specified in §312.5 of this title (relating to Relationship to Other Requirements).

(2) Reported. Information compiled and submitted to the commission that tracks the amount of waste being stored, treated, processed, transported or disposed of in the state, tracks the amount of processing, transporting and disposal capacity and reserve capacity, and enables equitable assessment and collection of fees.

(3) Payment. Receipt by the commission of the full amount of the annual fee(s) due.

(b) Except as provided in subsection (f) of this section, the amount of the annual fee which is assessed is determined by weight of solids disposed of and reported to the commission as of September 1, of each year. Failure to report the disposal of sewage sludge or water treatment sludge does not exempt a registrant or permittee from this fee. The fees shall be as follows:

(1) The minimum fee assessed against each registration or permit is \$100, regardless of whether the site is active or inactive.

(2) When water treatment sludge is mixed with a Class A sewage sludge or when sewage sludge that is classified as Class A is destined to be applied to the land for a beneficial use, the fee shall be \$0.20 per dry ton.

(3) When water treatment sludge is mixed with a Class B sewage sludge or when sewage sludge that is classified as Class B is applied to the land for beneficial use as described in Subchapter B of this chapter (relating to Land Application) the fee shall be \$0.75 per dry ton.

(4) When sewage sludge or water treatment sludge is applied to a site for disposal and the disposal was authorized by the commission or predecessor agency prior to the October 1, 1995, the fee shall be \$1.25 per dry ton.

(5) When sewage sludge is applied to a site for disposal or when water treatment sludge is applied to a site for disposal and the activity requires a permit as specified in Subchapter F of this chapter (relating to Disposal of Water Treatment Sludge), and the disposal is authorized by the commission or predecessor agency on October 1, 1995 or thereafter, the fee shall be \$1.25 per ton.

(6) When water treatment sludge is applied to a site for disposal and the activity does not require a permit as specified in Subchapter F of this chapter (relating to Disposal of Water Treatment Sludge), the fee shall be \$0.20 per dry ton.

(7) When sewage sludge is fired in a sewage sludge incinerator as described in Subchapter E of this chapter (relating to Guidelines And Standards for Sludge Incineration) the fee shall be \$1.25 per dry ton.

(c) An annual transporter fee is assessed against each person or entity holding a registration to transport sewage sludge, water treatment sludge, domestic septage, chemical toilet waste, grease trap waste, or grit trap waste issued in accordance with in Subchapter G of this chapter (relating to Transporters and Temporary Storage Provisions). The amount of the annual fee shall be based upon the total annual volume of waste transported by the transporter under each registration and reported to the commission as of June 15, each year. Failure to report the transportation of waste does not exempt a registrant from this fee. The fees shall be as follows.

(1) For a total annual volume transported of 10,000 gallons (50 cubic yards) or less the fee is \$100.

(2) For a total annual volume transported greater than 10,000 gallons (50 cubic yards) but equal to or less than 50,000 (250 cubic yards), the fee is \$250.

(3) For a total annual volume transported greater than 50,000 gallons (250 cubic yards) but equal to or less than 200,000 gallons (1,000 cubic yards), the fee is \$400.

(4) For a total annual volume transported of greater than 200,000 gallons (1,000 cubic yards) the fee is \$500.

(d) Fees assessed in subsection (b) of this section shall be paid, by the registrant or permittee after being billed by the executive director, prior to October 1, of each year. Fees assessed in subsection (c) of this section shall be paid by the registrant after billing by the executive director, prior to September 1, of each year. Fees shall be paid by check, certified check, or money order payable to the Texas Natural Resource Conservation Commission (TNRCC). The permittee or registrant of a facility failing to make payment of the fees imposed under this subchapter when due shall be assessed penalties and interest in accordance with Chapter 12 of this title (relating to Payment of Fees).

(e) Failure of the registrant or permittee to submit the required fee payment within 30 days of billing, shall be sufficient cause for the commission to revoke the registration or permit and authorization to process or dispose of waste. Any entity to whom a registration or permit is transferred shall be liable for payment of the annual fee on the same basis as the transferor.

(f) No fee will be assessed for sewage sludge or water treatment sludge composted with source separated yard waste at a composting facility, including a composting facility located at a permitted landfill site. This subsection does not apply if it is not used as compost and is deposited in a surface disposal site or landfill.

Adopted January 22, 1997

Effective February 14, 1997

§312.10. Permit and Registration Applications Processing.

(a) Applications for permits, registrations or other types of approvals, required by this subchapter shall be reviewed by the staff for administrative completeness within 14 calendar days of receipt of the application by the executive director.

(b) Permit and registration applications for sewage sludge land application, disposal, incineration, or transportation must include:

- (1) complete application form(s), signed and notarized, and appropriate copies provided;
- (2) the verified legal status of the applicant(s) as applicable;
- (3) the signature of the applicant(s), checked against agency requirements, in accordance with §305.44 of this title (relating to Signatories to Applications);
- (4) a notarized affidavit from the applicant(s) verifying land ownership or landowner agreement to the proposed activity;
- (5) the attachment of technical reports and supporting data required by the application; and
- (6) any other information as the executive director or the commission may reasonably require.

(c) Permit and registration applications for sewage sludge land application, disposal, or incineration must additionally include maps showing land ownership in accordance with §312.11 of this title (relating to Permits) or §312.12 of this title (relating to Registration of Class B Land Application Activities).

(d) Upon receipt of an application for a permit or registration, not to include transportation registrations, described in subsections (b) and (c) of this section which contains the information required, the executive director or his designee shall assign the application a number for identification purposes, and prepare a statement of the receipt of the application and declaration of administrative completeness which is suitable for publishing or mailing and shall forward that statement to the chief clerk. The chief clerk shall notify every person entitled to notification of a particular application as described in §312.13 of this title (relating to Actions and Notice).

(e) The notice of receipt of an application for permit or registration and declaration of administrative completeness shall contain the following information:

- (1) the identifying number given the application by the commission;
- (2) the type of permit or registration sought under the application;
- (3) the name and address of the applicant(s);
- (4) the date on which the application was submitted; and

(5) a brief summary of the information included in the application.

(f) Nothing in this section shall be construed so as to waive the requirement of notice of the application and draft permit in accordance with Chapter 305, Subchapter E of this title (relating to Actions, Notice and Hearing) for applications for sewage sludge processing, disposal, or incineration permits.

(g) Any person who is required to obtain a permit, or who requests an amendment, modification or renewal of a permit to dispose of or incinerate sewage sludge is subject to the application processing procedures and requirements found in §§281.18-281.24 of this title (relating to Applications Returned; Technical Review; Extensions; Draft Permit, Technical Summary, Fact Sheet, and Compliance Summary; Referral to Commission;) Application Amendment; and Effect of Rules).

(h) Any person who is required to obtain approval of a registration, or who requests an amendment, modification or renewal of a registration to land apply sewage sludge is subject to the application processing procedures and requirements found in §§281.18-281.20 of this title (relating to Applications Returned; Technical Review; and Extensions).

(i) The registration shall be cancelled upon receipt of a written request for cancellation from either the site operator or landowner. The TNRCC will provide notice to the other party that cancellation has been requested and that cancellation will occur ten days from the issuance of notice. This notice is provided merely as a courtesy by the TNRCC.

(j) In order to transfer a registration, both the registered site operator and the landowner must sign the transfer application. An application for transfer that is not signed by both the registered site operator and the landowner will be considered a request for cancellation.

(k) If a registration for a site is cancelled, a complete application for registration must be submitted in order to re-register the site. If the application is approved, the site will be re-registered under the same site registration number.

(l) Major Amendment. For purposes of this chapter and except as provided in subsection (m) of this section, a major amendment is an amendment that changes a substantive term, provision, requirement, or a limiting parameter of a permit or registration or a substantive change in the information provided in an application for registration, regarding sewage sludge. Changes which are not considered major include typographical errors, changes which result in more stringent monitoring requirements, changes in site ownership, changes in site operator, or similar administrative information.

(m) Upon the effective date of this chapter, the commission will process as a minor amendment a request by an existing wastewater disposal permittee, a sewage sludge registrant, or by a sewage sludge permittee to change any substantive term, provision, requirement, or a limiting parameter in a permit or registration which was due to prior regulations of the commission, when it is no longer a requirement of this chapter. Notice requirements of §312.13 (relating to Actions and Notice) are not applicable to minor amendments.

§312.11 Permits.

(a) The provisions of this section set the standards and requirements for permit applications to dispose of or incinerate sewage sludge.

(b) Any person who is required to obtain a permit, or who requests an amendment, modification or renewal of a permit to dispose of or incinerate sewage sludge is subject to the permit application procedures of §305.42(a) of this title (relating to Application Required), §305.43 of this title (relating to Who Applies), §305.44 of this title (relating to Signatories to Applications), §305.45 of this title (relating to Contents of Application for Permit), §305.46 of this title (relating to Designation of Material as Confidential), and §305.47 of this title (relating to Retention of Application Data).

(c) The following shall be included in an application for permit to dispose of or incinerate sewage sludge.

(1) The original and an appropriate number of copies of the permit application shall be submitted on forms provided by or approved by the executive director and shall be accompanied by a like number of copies of all technical supplements and attachments.

(2) The application shall include a map depicting the approximate boundaries of the tract of land owned or under the control of the applicant and shall show the ownership of all the tracts of land within one-half mile of the border of any portion or tract of land where the incineration or disposal facility is to be located. The application shall show each residential or business address and occupant of all the tracts of land within ½-mile of the border of any portion or tract of land where the incineration or disposal facility is to be located. The applicant shall list on a map, or in a separate sheet attached to a map, the names and addresses of the owners, residents, and businesses of such tracts of land as can be determined from the current county tax rolls and other reliable sources. The application shall state the source of the information.

(3) The applicant shall submit any other information reasonably required by the executive director to ascertain whether the facility will be constructed and operated in compliance with all pertinent state and federal statutes, including but not limited to the following:

(A) the operator's name, address, and telephone number;

(B) whether the facility is located on Indian lands; and

(C) the legal owners of all tracts of land on which the proposed activity will occur.

(d) Any person who is required to obtain a permit, or who requests an amendment, modification or renewal of a permit to dispose of or incinerate sewage sludge is subject to the standards and requirements for applications and actions concerning amendments, modifications, renewals, transfers, corrections, revocations, and suspensions of permits, as set forth in §305.62 of this title (relating to Amendment), §305.63 of this title (relating to Renewal), §305.64 of this title (related to Transfer of Permits), §305.65 of this title (relating to Corrections of Permits), §305.66 of this title (relating to Permit Denial, Suspension, and Revocation),

§305.67 of this title (relating to Revocation and Suspension upon Request or Consent), and §305.68 of this title (relating to Action and Notice on Petition for Revocation or Suspension).

(e) Any person who is issued a permit to dispose of or incinerate sewage sludge is subject to the permit characteristics and standards set forth in §305.122 of this title (relating to Characteristics of Permits), §305.123 of this title (relating to Reservation in Granting Permit), §305.124 of this title (relating to Acceptance of Permit, Effect), §305.125 of this title (relating to Standard Permit Conditions), §305.126(d) of this title (relating to Additional Standard Permit Conditions for Waste Discharge Permits), §305.127 of this title (relating to Conditions to be Determined for Individual Permits), §305.128 of this title (relating to Signatories to Reports), and §305.129 of this title (relating to Variance Procedures).

Adopted September 26, 1995

Effective October 13, 1995

§312.12. Registration of Land Application Activities.

(a) Except as provided in §312.4(b) of this title (relating to Sewage Sludge Permit, Registration, or Notification Required), any person who intends to conduct an activity of land application for beneficial use of a sewage sludge shall:

(1) notify the executive director in writing that such land application for beneficial use activities are planned. Such person shall submit to the executive director such information as may reasonably be required to enable the executive director to determine whether such land application for beneficial use activities are compliant with the terms of this chapter. Such information may include, but is not limited to the following:

(A) a description and composition of the sewage sludge;

(B) a description of all processes generating the sewage sludge;

(C) the disposition of the sewage sludge, including the name, address, and telephone number of any landowner or operator at the site, if subject to the registration requirements of this section, including the following information:

(i) whether such material is managed on-site and/or off-site from its point of generation;

(ii) a description of each on-site land application beneficial use unit or tract, including the name, address, and telephone number of all landowners, or the same information from a landowner acting as a spokesperson(s) for all the landowners, so long as the spokesperson submits to the executive director a sworn statement allowing the spokesperson to act for that family member;

(iii) a listing of the types of sewage sludge managed in each unit or tract;
and

(iv) a detailed description of the beneficial use occurring at each unit or tract of land where application of sewage sludge is proposed, including proposed waste management and crop production methods.

(v) information regarding soil characteristics and subsurface conditions where the operation is to be located, except that such information provided to the executive director since August 19, 1993 need not be provided with a renewal application.

(D) A new application or a major amendment application shall include a map depicting the approximate boundaries of the tract of land owned or under the control of the applicant and shall show each residential or business address and owner of all the tracts of land bordering the perimeter of any portion or tract of land where the land application site is to be located. The applicant shall list on a map, or in a separate sheet attached to a map, the names and addresses of the owners of such tracts of land as can be determined from the current county tax rolls and other reliable sources. The application shall state the source of the information.

(E) The application shall include analytical results showing the concentration of metals regulated by this chapter, taken from the uppermost zone of soil to be affected by the addition of sludge, from each USDA Natural Resource Conservation Service soil characterization or texture. The soil samples should be taken at a spatial distribution of one composite sample per every 80 acres of proposed sewage sludge application. An alternate frequency may be utilized, such as use of agricultural management units, when specified in a sampling plan provided by the applicant, which sufficiently establishes background soil conditions. With renewal or amendment applications, soil samples will not be required for those areas of the site where no sewage sludge land application or fertilizer application has occurred since prior samples were obtained and reported to the executive director.

(F) The application shall include analytical results showing the concentration of nutrients, salinity, and soil pH taken from the 0 to 6 inch zone of soil and from the 6 to 24 inch zone of soil in the proposed sludge application area, from each USDA Natural Resource Conservation Service soil characterization or texture. The soil samples should be taken at a spatial distribution of one composite sample per every 80 acres of proposed sewage sludge application. An alternate frequency may be utilized, such as use of agricultural management units, when specified in a sampling plan provided by the applicant, which sufficiently establishes background soil conditions. With renewal or amendment applications, soil samples will not be required for those areas of the site where no sewage sludge land application or fertilizer application has occurred since prior samples were obtained and reported to the executive director.

(G) Any information provided under this subsection shall be submitted to the executive director in quadruplicate form.

(2) have the continuing obligation to immediately provide written notice to the executive director of any changes, requests for an amendment, modification or renewal of a registration, or any additional information concerning changes in land ownership, changes in site control, or operator, changes in waste composition, change in the source of sewage sludge, waste management methods, and information regarding soils and subsurface conditions where the operation is to be located. Any information provided under this paragraph shall be submitted to the executive director in duplicate form.

(b) The executive director shall determine, after review of any application for registration of an activity to land apply sewage sludge for a beneficial use, if he will approve or deny an application in whole or in part, deny with prejudice, suspend the authority to conduct an activity for a specified period of time, or amend or modify the proposed activity requested by the applicant. The determination of the executive director shall include review and action on any new applications or changes, renewals, and requests for major amendment of any existing application. In consideration of such an application, the executive director will consider all relevant requirements of this chapter and consider all information pertaining to those requirements received by the executive director regarding the application. The written determination on any application, including any authorization granted, shall be mailed to the applicant upon the decision of the executive director.

(c) At the same time the executive director's decision is mailed to the applicant, a copy or copies of this decision shall also be mailed to all parties who submitted written information on the application, as described in §312.13(c)(2) and (3) of this title (relating to Actions and Notice).

Adopted September 26, 1995

Effective October 13, 1995

§312.13. Actions and Notice.

(a) Applicability. This section sets forth the manner in which action will be taken on applications for either a permit or a registration to land apply, dispose of, or incinerate sewage sludge filed with the commission.

(b) Permit Actions. Any application for a permit to dispose of or incinerate sewage sludge is subject to the standards and requirements for actions concerning amendments, modifications, transfers, and renewals of permits, as set forth in §305.92 of this title (relating to Action on Applications), §305.93(a) of this title (relating to Action on Applications for Permit), §305.95 of this title (relating to Action on Applications for Renewal), §305.96 of this title (relating to Action on Applications for Amendment or Modification), §305.97 of this title (relating to Action on Application for Transfer), §305.98 of this title (relating to Scope of Proceedings), §305.99 of this title (relating to Commission Action), §305.100 of this title (relating to Notice of Application), §305.101 of this title (relating to Notice of Hearing), §305.102 of this title (relating to Notice by Publication), §305.103 of this title (relating to Notice by Mail), §305.105 of this title (relating to Request for Public Hearing), and §305.106 of this title (relating to Response to Comments).

(c) Registration Actions.

(1) The public notice requirements of this subsection apply to new applications for a registration, and to applications for major amendment of a registration for land application of Class B sewage sludge. The requirements of this subsection do not apply to sites where only Class A sewage sludge is to be land applied for a beneficial use.

(2) The chief clerk of the commission shall mail Notice of Receipt of Application and Declaration of Administrative Completeness, along with a copy of the registration application, to the county judge in the county where the proposed site for land application of sewage sludge is to be located.

(3) The chief clerk of the commission shall mail notice of Receipt of Application and Administrative Completeness to the landowners named on the application map or supplemental map, or the sheet attached to the application map or supplemental map.

(4) Each notice shall specify both the name, affiliation, address, and telephone number of the applicant and of the commission employee who may be reached to obtain more information about the application to register the site. The notices shall specify that the registration application has been provided to the county judge and that it is available for review by interested parties.

(d) Public Comment on Registrations. A person may provide the commission with written comments on any new or major amendment applications to register a site for land application of sewage sludge. The executive director shall review any written comments when they are received within 30 days of mailing the notice. The written information received will be utilized by the executive director in determining what action to take on the application for registration, pursuant to §312.12(b) of this title (relating to Registration of Land Application Activities).

(e) Motion for reconsideration. The applicant or a person affected may file with the chief clerk a motion for reconsideration, under §50.39(b)-(f) of this title (relating to Motion for Reconsideration), of the executive director's final approval of an application.

Adopted April 16, 1997

Effective May 15, 1997